

# Local study links positive maternal well-being to better cognitive abilities in pre-schoolers

**Joyce Teo**  
Senior Health Correspondent

Mothers with a positive sense of mental well-being tend to adopt healthier parenting styles, based on setting boundaries and communication, a Singapore study has found. Such an approach to parenting, in turn, is associated with stronger cognitive development in pre-school-age children.

Conversely, the study found that mothers with poor mental well-being tended to adopt either a harsher or a more lenient parenting style, both of which were associated with more behavioural difficulties in pre-school children.

Children in the first group, coming from homes where parents are both authoritative and explain the rules that they set, have fewer behavioural difficulties, such as being unable to sit still or make friends.

Crucially, researchers found that positive and negative mental health operate largely independently – meaning that treating depression in a mother does not automatically boost her positive mental health.

Given these findings, the study done by the A\*STAR Institute for Human Development and Potential (IHDP) recommended that public health initiatives go beyond treating mental disorders to actively promote and support positive maternal mental health, as this could enhance effective parenting and

optimise cognitive outcomes for children.

Authoritative parenting, said the authors, is characterised by warmth and reasoning, and is democratically participative.

Dr Michelle Kee, a principal scientist at IHDP and lead author of the study, said many mothers with poor mental well-being who are not clinically depressed could be missed in screenings. The focus should be on helping them to feel calm and confident so that they can better focus on parenting and helping their children grow well, she said.

The study surveyed 328 mother-child pairs, drawing data from the Growing Up in Singapore Towards Healthy Outcomes (GUSTO) birth cohort.

Done in collaboration with the NUS Yong Loo Lin School of Medicine and KK Women's and Children's Hospital (KKH), it was published in the JAACAP Open journal on child and adolescent health in November 2025.

While this particular study does not have data on fathers, Dr Kee said men also play an important role in parenting that should be further studied.

Many older adults in Singapore would have grown up with harsh, or authoritarian, parents who would have demanded obedience or used punishment without explanation. The opposite is permissive parenting, where parents are lenient and avoid enforcing boundaries.

Associate Professor Helen Chen, co-author of the study and senior consultant psychiatrist at KKH, said she has encountered mothers who faced considerable hardship in the past, such as divorce or abuse. This often manifests in an authoritarian parenting style involving physical punishment or verbal abuse, which fractures their bond with their children.

“But understanding where it came from and how it got there helps the mother to constantly work at repairing that relationship. It's hard work. We aren't expected to be perfect, but ruptures happen all the time. If we recognise them, we can repair them and heal a little from the experience,” said Prof Chen.

If this goes unresolved, the strained parent-child relationship could persist into adulthood.

The researchers assessed the children in the study at the ages of four to 4½, using standardised tests for IQ, vocabulary, numeracy and executive function.

“The greatest impact is in the first three years of life. The child's brain is making connections and neurons are doubling and tripling every day in response to caregiving experiences,” said Prof Chen.

With the paper, Prof Chen said she now has local evidence to support her conversations with mothers, helping them understand that their emotional well-being affects their parenting style, which in turn impacts their children's cognitive development and socio-emotional behaviour.

Dr Kee said that support for new mothers and those with young children should extend beyond those who meet the criteria for a clinical depression diagnosis.

She said she will soon be recruiting first-time expectant parents for an interventional study on how they take care of themselves and how that affects their emotional well-being and, in turn, their parenting competency.

[joyceteo@sph.com.sg](mailto:joyceteo@sph.com.sg)